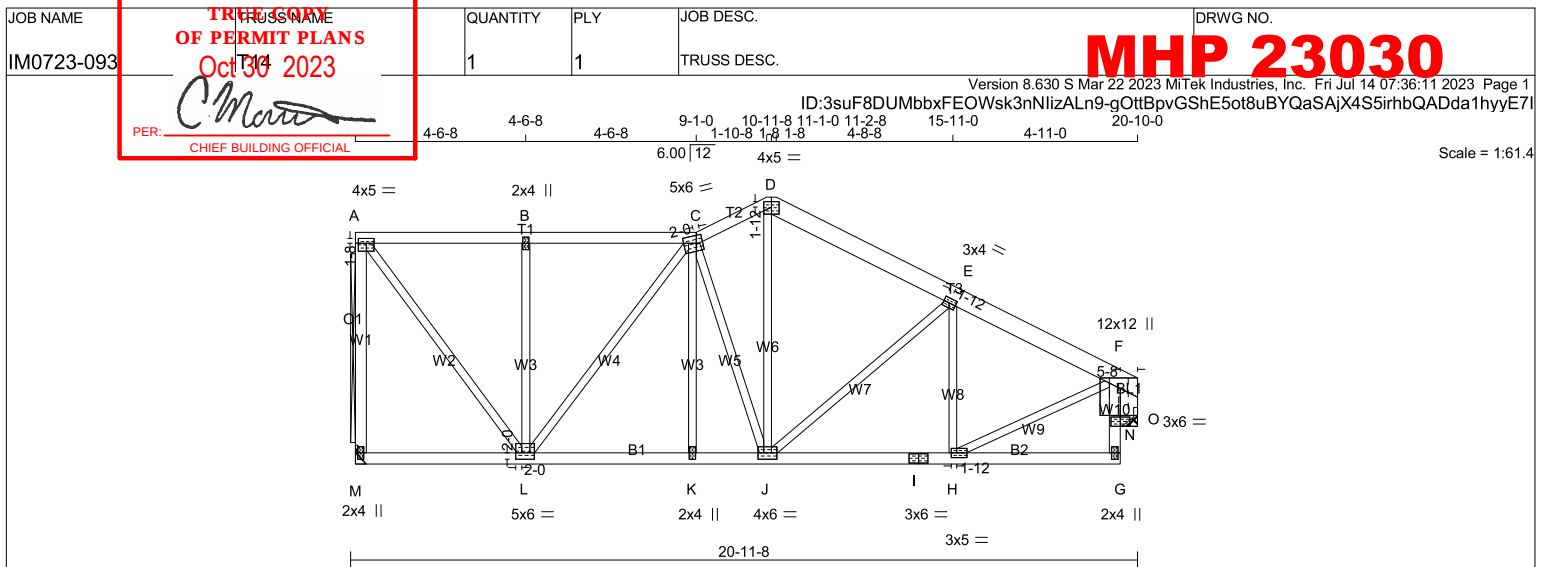


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.																																																																																																																																																																																																																																		
IM0723-093	TRUSS NAME OF PERMIT PLANS Oct 30 2023 PER: <i>Charna</i> CHIEF BUILDING OFFICIAL	1	1	TRUSS DESC.	MHP 23030																																																																																																																																																																																																																																		
Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Fri Jul 14 07:36:11 2023 Page 1 ID:3suF8DUMbbxFEOWsk3nNlizALn9-gOttBpVGSHE5ot8uBYQaSAjVpS51rcMQADda1hyyE7I Scale = 1:58.7 TOTAL WEIGHT = 119 lb [M]																																																																																																																																																																																																																																							
LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. Q - A 2x4 DRY No.2 SPF A - C 2x4 DRY No.2 SPF C - D 2x4 DRY No.2 SPF D - F 2x4 DRY No.2 SPF F - H 2x4 DRY No.2 SPF I - H 2x4 DRY No.2 SPF Q - K 2x4 DRY No.2 SPF K - I 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT DRY: SEASONED LUMBER.		DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table border="1"> <thead> <tr> <th></th> <th>FACTORED GROSS REACTION</th> <th>MAXIMUM FACTORED GROSS REACTION</th> <th>INPUT BRG</th> <th>REQRD BRG</th> </tr> </thead> <tbody> <tr> <td>JT VERT</td> <td>1434</td> <td>0</td> <td>1434</td> <td>0</td> </tr> <tr> <td>Q</td> <td>1434</td> <td>0</td> <td>1434</td> <td>0</td> </tr> <tr> <td>I</td> <td>1434</td> <td>0</td> <td>1434</td> <td>0</td> </tr> </tbody> </table> A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT Q, I. MINIMUM BEARING LENGTH AT JOINT Q = 1-9, JOINT I = 1-9.					FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	JT VERT	1434	0	1434	0	Q	1434	0	1434	0	I	1434	0	1434	0																																																																																																																																																																																																														
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CSF (LC)	FR-TO		FROM	TO			FR-TO					Q-A	-1407 / 0	0.0	0.0	0.40 (1)	7.81	A-P	0 / 1395	0.31 (1)			A-B	-621 / 0	-119.4	-119.4	0.22 (1)	6.25	P-B	-498 / 0	0.45 (1)			B-C	-621 / 0	-119.4	-119.4	0.22 (1)	6.25	P-C	-761 / 0	0.88 (1)			C-D	-1059 / 0	-119.4	-119.4	0.10 (1)	5.96	O-C	0 / 868	0.20 (1)			D-E	-1287 / 0	-119.4	-119.4	0.08 (1)	5.57	O-D	-873 / 0	0.60 (1)			E-F	-1287 / 0	-119.4	-119.4	0.08 (1)	5.57	N-D	0 / 39	0.01 (4)			F-G	-1363 / 0	-119.4	-119.4	0.31 (1)	5.13	D-M	0 / 78	0.02 (1)			G-H	-1333 / 0	-119.4	-119.4	0.31 (1)	5.18	M-E	-285 / 0	0.17 (1)			I-H	-1403 / 0	0.0	0.0	0.17 (1)	6.80	M-F	0 / 260	0.06 (1)									L-F	0 / 78	0.02 (4)			Q-P	0 / 0	-18.2	-18.2	0.05 (4)	10.00	L-G	-25 / 0	0.01 (1)			P-O	0 / 960	-18.2	-18.2	0.18 (1)	10.00	J-G	-538 / 0	0.15 (1)			O-N	0 / 1260	-18.2	-18.2	0.23 (1)	10.00	J-H	0 / 1360	0.31 (1)			N-M	0 / 1260	-18.2	-18.2	0.22 (1)	10.00						M-L	0 / 1198	-18.2	-18.2	0.21 (1)	10.00						L-K	0 / 1213	-18.2	-18.2	0.22 (1)	10.00						K-J	0 / 1213	-18.2	-18.2	0.22 (1)	10.00						J-I	0 / 0	-18.2	-18.2	0.06 (4)	10.00					
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I-H	-1403 / 0	0.0	0.0	0.17 (1)	6.80	M-F	0 / 260	0.06 (1)																																																																																																																																																																																																																															
						L-F	0 / 78	0.02 (4)																																																																																																																																																																																																																															
Q-P	0 / 0	-18.2	-18.2	0.05 (4)	10.00	L-G	-25 / 0	0.01 (1)																																																																																																																																																																																																																															
P-O	0 / 960	-18.2	-18.2	0.18 (1)	10.00	J-G	-538 / 0	0.15 (1)																																																																																																																																																																																																																															
O-N	0 / 1260	-18.2	-18.2	0.23 (1)	10.00	J-H	0 / 1360	0.31 (1)																																																																																																																																																																																																																															
N-M	0 / 1260	-18.2	-18.2	0.22 (1)	10.00																																																																																																																																																																																																																																		
M-L	0 / 1198	-18.2	-18.2	0.21 (1)	10.00																																																																																																																																																																																																																																		
L-K	0 / 1213	-18.2	-18.2	0.22 (1)	10.00																																																																																																																																																																																																																																		
K-J	0 / 1213	-18.2	-18.2	0.22 (1)	10.00																																																																																																																																																																																																																																		
J-I	0 / 0	-18.2	-18.2	0.06 (4)	10.00																																																																																																																																																																																																																																		
LICENSED PROFESSIONAL ENGINEER I. MATIJEVIC 100528832 PROVINCE OF ONTARIO JULY 14, 2023		DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 34.8 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.3 PSF TOTAL LOAD = 48.1 PSF SPACING = 24.0 IN. C/C LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 2.00/12 MINIMUM THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF CBC 2018, NBC-2019AE - PART 9 OF OBC 2012 (2019 AMENDMENT) - CSA 086-14 - TPIC 2014 (55% OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL) = L/360 (0.69") CALCULATED VERT. DEFL.(LL) = L/999 (0.05") ALLOWABLE DEFL.(TL) = L/360 (0.69") CALCULATED VERT. DEFL.(TL) = L/999 (0.09") CSI: TC=0.40/0.97 (A-Q:1) , BC=0.23/0.97 (N-O:1) , WB=0.88/0.97 (C-P:1) , SSI=0.20/1.00 (G-H:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10 COMPANION LIVE LOAD FACTOR = 1.00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1987 1873 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.90 (J) (INPUT = 0.90) JSI METAL= 0.42 (C) (INPUT = 1.00)																																																																																																																																																																																																																																					
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: TRUSSES. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.																																																																																																																																																																																																																																							



TOTAL WEIGHT = 109 lb

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
M - A	2x4	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
D - F	2x6	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
M - I	2x4	DRY	No.2	SPF
I - G	2x4	DRY	No.2	SPF

BEARING BLOCKS					
BL1	2x6	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

BEARING NOTE: GAP BETWEEN INSIDE OF TOP CHORD BEARING AND FIRST DIAGONAL OR VERTICAL WEB SHALL NOT EXCEED 0.5 INCHES.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	5.0	1.50	2.50
B	TMW+w	MT20	2.0	4.0		
C	TTWWW-m	MT20	5.0	6.0	2.50	2.00
D	TTW-p	MT20	4.0	5.0	1.75	2.50
E	TMVW-t	MT20	3.0	4.0	1.50	1.75
F	TMVWK1+w	MT20	12.0	12.0	Edge	5.50
G	BMV+p	MT20	2.0	4.0		
H	BMVW-t	MT20	3.0	5.0	1.50	1.75
I	BS-t	MT20	3.0	6.0		
J	BMVWW-t	MT20	4.0	6.0		
K	BMV+w	MT20	2.0	4.0		
L	BMVWW-t	MT20	5.0	6.0	2.00	2.00
M	BMV1+p	MT20	2.0	4.0		
N	KP-p	MT20	3.0	6.0		3.00

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER**BEARINGS**

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UPLIFT
M	1420	0	1420	0
O(F)	1386	0	1386	0

(** SEE "BEARING NOTE" **)

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT M, O(F). MINIMUM BEARING LENGTH AT JOINT M = 1-9, JOINT O(F) = 5-0.

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. SNOW	MAX./MIN. LIVE	MAX./MIN. PERM.LIVE	WIND	DEAD	SOIL
M	992	718 / 0	0 / 0	0 / 0	0 / 0	274 / 0	0 / 0
O(F)	968	701 / 0	0 / 0	0 / 0	0 / 0	268 / 0	0 / 0

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.74 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

2x4 DRY SPF No.2 T-BRACE AT A-M

FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3" COMMON WIRE NAILS @ 6" O.C. WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED HORIZ. LOAD (PLF)	MAX. FACTORED UNBRACED LENGTH (FT)	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED HORIZ. LOAD (PLF)
FR-TO							FR-TO				
M-A	-1385 / 0	0.0	0.0	0.29 (1)	7.81		A-L	0 / 1489	0.34 (1)		
A-B	-911 / 0	-119.4	-119.4	0.32 (1)	6.01		L-B	-669 / 0	0.40 (1)		
B-C	-911 / 0	-119.4	-119.4	0.32 (1)	6.01		L-C	-522 / 0	0.55 (1)		
C-D	-1195 / 0	-119.4	-119.4	0.08 (1)	5.74		K-C	0 / 50	0.02 (4)		
D-E	-1226 / 0	-119.4	-119.4	0.15 (1)	6.25		C-J	-486 / 0	0.33 (1)		
E-F	-1376 / 0	-119.4	-119.4	0.15 (1)	6.25		H-E	-425 / 0	0.13 (1)		
G-N	0 / 35	0.0	0.0	0.20 (1)	10.00		H-F	0 / 1208	0.27 (1)		
N-F	0 / 35	0.0	0.0	0.20 (1)	10.00		J-D	0 / 703	0.16 (1)		
							J-E	-247 / 0	0.19 (1)		
M-L	0 / 0	-18.2	-18.2	0.09 (4)	10.00		F-O	-1412 / 0	0.10 (1)		
L-K	0 / 1231	-18.2	-18.2	0.24 (1)	10.00		N-O	0 / 274	0.00 (1)		
K-J	0 / 1230	-18.2	-18.2	0.24 (1)	10.00						
J-I	0 / 1255	-18.2	-18.2	0.25 (1)	10.00						
I-H	0 / 1255	-18.2	-18.2	0.25 (1)	10.00						
H-G	0 / 163	-18.2	-18.2	0.11 (4)	10.00						

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD	=	48.1	PSF	

SPACING = 24.0 IN. C/C

LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, NBC-2019AE
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.68")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL) = L/360 (0.68")
CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

CSI: TC=0.32/0.97 (A-B:1), BC=0.25/0.97 (H-J:1), WB=0.55/0.97 (C-L:1), SSI=0.26/1.00 (A-B:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE LEFT HEEL ONLY

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (L) (INPUT = 0.90)

JSI METAL= 0.35 (I) (INPUT = 1.00)



JULY 14, 2023

READ ALL NOTES ON THIS PAGE AND THE ENGINEERING NOTES: TRUSSES. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



CORPORATION OF THE CITY OF OSHAWA

TRUSS NAME

OF PERMIT PLANS

Oct 30 2023

PER: [Signature]

CHIEF BUILDING OFFICIAL

IM0723-093

QUANTITY

PLY

JOB DESC.

TRUSS DESC.

DRWG NO.

MHP 23030

Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Fri Jul 14 07:36:12 2023 Page 1

ID:3suF8DUMbbxFEOWsk3nNlIZALn9-8aRFO8wuD?NyQ1j5lFxp?OFdtsRta9wZPtN7a7yyE7H

6-8 3-6-8 6.00 7-1-0 2-0-0 9-1-0 4-0-0 13-1-0 3-9-4 16-10-4 3-11-12 20-10-0

Scale = 1:49.9

TOTAL WEIGHT = 109 lb

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
O - A	2x4	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
D - E	2x4	DRY	No.2	SPF
E - G	2x6	DRY	No.2	SPF
H - G	2x4	DRY	No.2	SPF
O - J	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF

BEARING BLOCKS

BL1	2x6	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF

EXCEPT

DRY: SEASONED LUMBER.

BEARING NOTE: GAP BETWEEN INSIDE OF TOP CHORD BEARING AND FIRST DIAGONAL OR VERTICAL WEB SHALL NOT EXCEED 0.5 INCHES.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	5.0	1.50	2.25
B	TMW+w	MT20	2.0	4.0		
C	TTWWW-m	MT20	5.0	6.0	2.50	2.00
D	TTWW-m	MT20	4.0	6.0	1.75	2.25
E	TTW-m	MT20	4.0	5.0		
F	TMVW-t	MT20	3.0	4.0	1.50	1.75
G	TMVWK1+w	MT20	12.0	12.0	Edge	5.50
H	BMV+p	MT20	2.0	4.0		
I	BMVW-t	MT20	3.0	5.0	1.50	1.75
J	BS-t	MT20	3.0	6.0		
K	BMVWW-t	MT20	3.0	8.0		
L	BMVW-t	MT20	3.0	4.0		
M	BMV+w	MT20	2.0	4.0		
N	BMVWW-t	MT20	5.0	6.0	1.75	2.00
O	BMV1+p	MT20	2.0	4.0		
P	KP-p	MT20	3.0	6.0		3.00

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
VERT				
DOWN				
UP				
Q(G)				

(** SEE "BEARING NOTE" **)

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT O, Q(G). MINIMUM BEARING LENGTH AT JOINT O = 1-9, JOINT Q(G) = 5-0.

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
O	992	718 / 0	0 / 0	0 / 0	0 / 0	274 / 0	0 / 0
Q(G)	968	701 / 0	0 / 0	0 / 0	0 / 0	268 / 0	0 / 0

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.36 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
O-A	-1391 / 0	0.0	0.0 0.63 (1)	A-N	0 / 1518	0.34 (1)	
A-B	-892 / 0	-119.4	-119.4 0.25 (1)	N-B	-517 / 0	0.20 (1)	
B-C	-892 / 0	-119.4	-119.4 0.25 (1)	N-C	-788 / 0	0.48 (1)	
C-D	-1371 / 0	-119.4	-119.4 0.10 (1)	M-C	0 / 47	0.02 (4)	
D-E	-1173 / 0	-119.4	-119.4 0.35 (1)	C-L	-325 / 0	0.15 (1)	
E-F	-1334 / 0	-119.4	-119.4 0.11 (1)	L-D	0 / 359	0.08 (1)	
F-G	-1289 / 0	-119.4	-119.4 0.11 (1)	D-K	-108 / 0	0.10 (1)	
H-P	0 / 29	0.0	0.0 0.19 (1)	K-E	0 / 164	0.04 (1)	
P-G	0 / 29	0.0	0.0 0.19 (1)	K-F	0 / 6	0.00 (4)	
O-N	0 / 0	-18.2	-18.2 0.05 (4)	I-F	-535 / 0	0.14 (1)	
N-M	0 / 1356	-18.2	-18.2 0.25 (1)	I-G	0 / 1174	0.26 (1)	
M-L	0 / 1355	-18.2	-18.2 0.24 (1)	G-Q	-1412 / 0	0.10 (1)	
L-K	0 / 1233	-18.2	-18.2 0.23 (1)	P-Q	0 / 274	0.00 (1)	
K-J	0 / 1170	-18.2	-18.2 0.22 (1)				
J-I	0 / 1170	-18.2	-18.2 0.22 (1)				
I-H	0 / 163	-18.2	-18.2 0.06 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 34.8 PSF

DL = 6.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.3 PSF

TOTAL LOAD = 48.1 PSF

SPACING = 24.0 IN. C/C

LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, NBC-2019AE
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.68")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")

ALLOWABLE DEFL.(TL)= L/360 (0.68")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.63/0.97 (A-O:1) , BC=0.25/0.97 (M-N:1) , WB=0.48/0.97 (C-N:1) , SSI=0.20/1.00 (A-B:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE LEFT HEEL ONLY

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX MIN	MAX MIN	MAX MIN	
MT20	650 371	1747 788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (I) (INPUT = 0.90)

JSI METAL= 0.35 (J) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER

I. MATIJEVIC

100528832

PROVINCE OF ONTARIO

JULY 14, 2023

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: TRUSSES. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

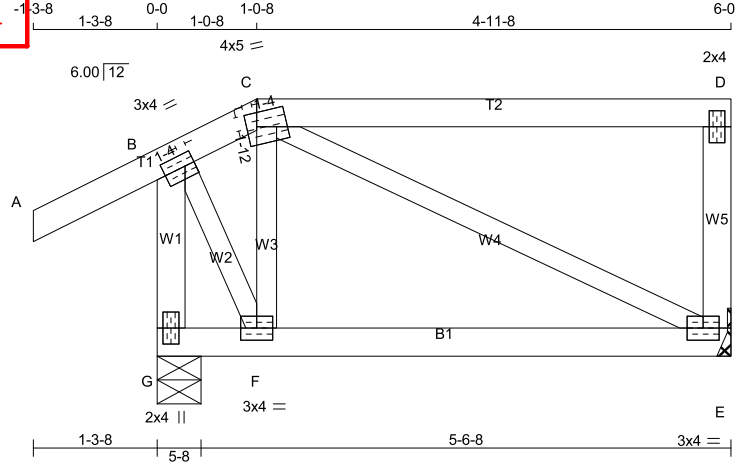
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-093	TRUSS NAME	1	1	TRUSS DESC.	MHP 23030

OF PERMIT PLANS

Oct 30 2023

PER: 
CHIEF BUILDING OFFICIALVersion 8.630 S Mar 22 2023 MiTek Industries, Inc. Fri Jul 14 07:36:13 2023 Page 1
ID:bcGHXsLhLjMpVeVc_4eeDgzAk7y-cm_dcUxX_IVp1BIHlzS2XboqGolJidieX6h6ayyE7G

Scale: 1/2"=1'



TOTAL WEIGHT = 27 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
C - D	2x4	DRY	No.2	SPF	
E - D	2x4	DRY	No.2	SPF	
G - B	2x4	DRY	No.2	SPF	
G - E	2x4	DRY	No.2	SPF	

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	4.0	1.50	1.25
C	TTWW-m	MT20	4.0	5.0	1.75	1.25
D	TMV+p	MT20	2.0	4.0		
E	BMVW1-t	MT20	3.0	4.0		
F	BMVW1-t	MT20	3.0	4.0		
G	BMV1+p	MT20	2.0	4.0		

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER**BEARINGS**

	FACTORED	MAXIMUM FACTORED	INPUT	REQRD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ
E	395	0	395	0
G	593	0	593	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT E. MINIMUM BEARING LENGTH AT JOINT E = 1-8.

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	276	198 / 0	0 / 0	0 / 0	0 / 0	78 / 0	0 / 0
G	412	314 / 0	0 / 0	0 / 0	0 / 0	98 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) G

BRACINGTOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED	FACTORED	MAX	MEMB.	MAX. FACTORED	MAX	
	FORCE	VERT. LOAD	LC1		FORCE	MAX	
	(LBS)	(PLF)	CS1 (LC)		(LBS)	CS1 (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 36	-119.4	-119.4	0.16 (1)	10.00	F-C	-123 / 20
B-C	-198 / 0	-119.4	-119.4	0.15 (1)	6.25	C-E	-142 / 0
C-D	0 / 0	-119.4	-119.4	0.50 (1)	10.00	B-F	0 / 254
E-D	-296 / 0	0.0	0.0	0.04 (1)	7.81		
G-B	-614 / 0	0.0	0.0	0.07 (1)	7.81		
G-F	0 / 0	-18.2	-18.2	0.10 (4)	10.00		
F-E	0 / 128	-18.2	-18.2	0.11 (4)	10.00		

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD	=	48.1	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, NBC-2019AE
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.02")

CSI: TC=0.50/0.97 (C-D:1), BC=0.11/0.97 (E-F:4), WB=0.07/0.97 (C-E:1), SSI=0.23/1.00 (C-D:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	650	371	1747

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.64 (B) (INPUT = 0.90)
JSI METAL= 0.13 (G) (INPUT = 1.00)

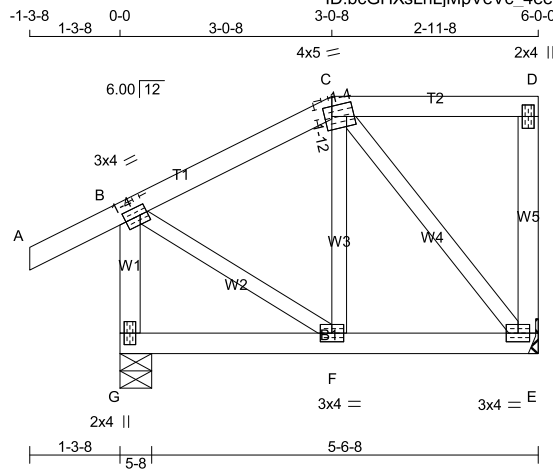
JULY 14, 2023

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: TRUSSES. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-093	TRUSS NAME	1	1	TRUSS DESC.	MHP 23030

PER: 
CHIEF BUILDING OFFICIAL



TOTAL WEIGHT = 30 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4 DRY	No.2	SPF		
C - D	2x4 DRY	No.2	SPF		
E - D	2x4 DRY	No.2	SPF		
G - B	2x4 DRY	No.2	SPF		
G - E	2x4 DRY	No.2	SPF		

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	4.0	1.50	1.25
C	TTWW-m	MT20	4.0	5.0	1.75	1.25
D	TMV+p	MT20	2.0	4.0		
E	BMVW1-t	MT20	3.0	4.0		
F	BMVW-t	MT20	3.0	4.0		
G	BMV1+p	MT20	2.0	4.0		

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

	FACTORED	MAXIMUM FACTORED	INPUT	REQD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ
E	413	0	413	0
G	575	0	575	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT E. MINIMUM BEARING LENGTH AT JOINT E = 1-8.

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	289	209 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0
G	399	303 / 0	0 / 0	0 / 0	0 / 0	96 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) G

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. FACTORED LC1 MAX (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 MAX (LC)
FR-TO					FR-TO		
A-B	0 / 36	-119.4	-119.4	0.16 (1)	10.00	F-C	-48 / 43
B-C	-212 / 0	-119.4	-119.4	0.19 (1)	6.25	C-E	-286 / 0
C-D	0 / 0	-119.4	-119.4	0.18 (1)	10.00	B-F	0 / 220
E-D	-177 / 0	0.0	0.0	0.04 (1)	7.81		
G-B	-551 / 0	0.0	0.0	0.06 (1)	7.81		
G-F	0 / 0	-18.2	-18.2	0.04 (4)	10.00		
F-E	0 / 188	-18.2	-18.2	0.06 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD	=	48.1	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, NBC-2019AE
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

CSI: TC=0.19/0.97 (B-C:1) , BC=0.06/0.97 (E-F:4) ,
WB=0.09/0.97 (C-E:1) , SSI=0.14/1.00 (C-D:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	650	371	1747

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.55 (B) (INPUT = 0.90)
JSI METAL= 0.12 (B) (INPUT = 1.00)



JULY 14, 2023

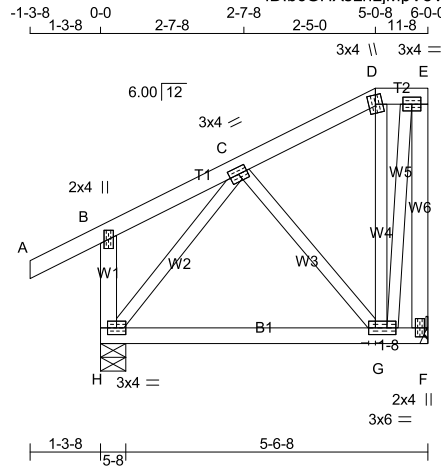
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PER: _____
CHIEF BUILDING OFFICIAL

Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Fri Jul 14 07:36:14 2023 Page 1
ID:bcGHXsLhLjMpVeVc_4eeDgzAk?y-4zY0pqy9lcdgfKtTsg_H4pL4pg8R29WssBsEe0yyE7F

Scale = 1:42.3



TOTAL WEIGHT = 35 lb

LUMBER

N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	No.2	SPF
D - E	2x4	No.2	SPF
F - E	2x4	No.2	SPF
H - B	2x4	No.2	SPF
H - F	2x4	No.2	SPF

ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
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DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWV-t	MT20	3.0	4.0		
D	TTW+m	MT20	3.0	4.0		
E	TMWV-t	MT20	3.0	4.0		
F	BMV1+p	MT20	2.0	4.0		
G	BMWVWV-t	MT20	3.0	6.0	1.50	1.50
H	BMWV1-t	MT20	3.0	4.0		

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
F	413	0	413	0	0	MECHANICAL	
H	575	0	575	0	0	5-8	1-8

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT F. MINIMUM BEARING LENGTH AT JOINT F = 1-8.

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	289	209 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0
H	289	303 / 0	0 / 0	0 / 0	0 / 0	96 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) H

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY
APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

C H O R D S					W E B S				
MAX. FACTORED		FACTORED			MAX. FACTORED				
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MAX.	MEMB.	MAX. FORCE	FACTORED	
	(LBS)	(PLF)	CSI (LC)	UNBRAC			(LBS)	MAX	CSI (LC)
FR-TO		FROM	TO	LENGTH	FR-TO				
A - B	0 / 36	-119.4	-119.4	0.16 (1)	10.00	C - G	-202 / 0	0.06 (1)	
B - C	0 / 16	-119.4	-119.4	0.12 (1)	10.00	G - D	-133 / 0	0.04 (1)	
C - D	-103 / 0	-119.4	-119.4	0.12 (1)	6.25	E - E	0 / 393	0.09 (1)	
D - E	-75 / 0	-119.4	-119.4	0.02 (1)	6.25	H - C	-330 / 0	0.09 (1)	
F - E	-442 / 0	0.0	0.0	0.16 (1)	7.81				
H - B	-278 / 0	0.0	0.0	0.03 (1)	7.81				
H - G	0 / 208	-18.2	-18.2	0.12 (4)	10.00				
G - F	0 / 0	-18.2	-18.2	0.11 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL	=	34.8	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.3	PSF
TOTAL LOAD				=	48.1 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A
SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL
OR SMALL BUILDING REQUIREMENTS OF
PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018 , NBC-2019AE
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.16/0.97 (E-F:1), BC=0.12/0.97 (G-H:4),
WB=0.09/0.97 (E-G:1), SSI=0.13/1.00 (B-C:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.76 (E) (INPUT = 0.90)
JSI METAL= 0.13 (E) (INPUT = 1.00)



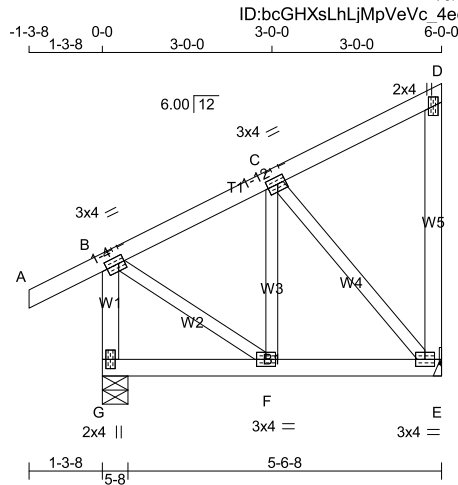
JULY 14, 2023

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CONTAINS SPECIFICATIONS AND CRITERIA USED
IN THE DESIGN OF THIS COMPONENT.**



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-093	TRUSS NAME OF PERMIT PLANS Oct 30 2023	2	1	TRUSS DESC.	MHP 23030

PER: 
CHIEF BUILDING OFFICIAL



TOTAL WEIGHT = 2 X 32 = 64 lb

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
G - B	2x4	DRY	No.2	SPF
A - D	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
G - E	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	4.0	1.50	1.25
C	TMVW-t	MT20	3.0	4.0	1.50	1.75
D	TMV+p	MT20	2.0	4.0		
E	BMVW1-t	MT20	3.0	4.0		
F	BMVW-t	MT20	3.0	4.0		
G	BMV1+p	MT20	2.0	4.0		

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER**BEARINGS**

	FACTORED	MAXIMUM FACTORED	INPUT	REQRD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ
G	575	0	575	0
E	413	0	413	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT E. MINIMUM BEARING LENGTH AT JOINT E = 1-8.

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS
	COMBINED	SNOW	LIVE
G	399	303 / 0	0 / 0
E	289	209 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) G

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM	TO		FR-TO		
G-B	-552 / 0	0.0	0.0	0.07 (1)	7.81	B-F	0 / 267
A-B	0 / 36	-119.4	-119.4	0.16 (1)	10.00	F-C	-77 / 37
B-C	-234 / 0	-119.4	-119.4	0.18 (1)	6.25	C-E	-341 / 0
C-D	-19 / 0	-119.4	-119.4	0.18 (1)	6.25		
E-D	-136 / 0	0.0	0.0	0.06 (1)	7.81		
G-F	0 / 0	-18.2	-18.2	0.04 (4)	10.00		
F-E	0 / 227	-18.2	-18.2	0.06 (4)	10.00		

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD	=	48.1	PSF	

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, NBC-2019AE
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL)= L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL)= L/999 (0.00")

CSI: TC=0.18/0.97 (B-C:1), BC=0.06/0.97 (E-F:4),
WB=0.11/0.97 (C-E:1), SSI=0.16/1.00 (B-C:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
	MAX	MIN	MAX
MT20	650	371	1747

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.67 (B) (INPUT = 0.90)
JSI METAL= 0.13 (B) (INPUT = 1.00)



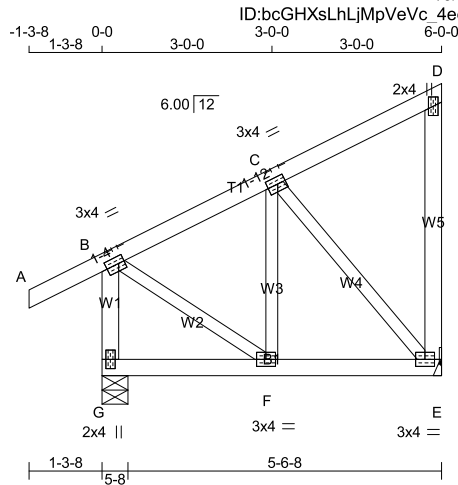
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-093	TRUSS NAME OF PERMIT PLANS Oct 30 2023	2	1	TRUSS DESC.	MHP 23030

PER: 
CHIEF BUILDING OFFICIAL



Scale = 1:40.7

TOTAL WEIGHT = 2 X 32 = 64 lb

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
G - B	2x4	DRY	No.2	SPF
A - D	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
G - E	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	4.0	1.50	1.25
C	TMWW-t	MT20	3.0	4.0	1.50	1.75
D	TMV+p	MT20	2.0	4.0		
E	BMVW1-t	MT20	3.0	4.0		
F	BMVW-t	MT20	3.0	4.0		
G	BMV1+p	MT20	2.0	4.0		

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER**BEARINGS**

	FACTORED	MAXIMUM FACTORED	INPUT	REQD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	UPLIFT
G	575	0	575	0
E	413	0	413	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT E. MINIMUM BEARING LENGTH AT JOINT E = 1-8.

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS
	COMBINED	SNOW	LIVE
G	399	303 / 0	0 / 0
E	289	209 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) G

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH
FR-TO		FROM	TO		FR-TO		
G-B	-552 / 0	0.0	0.0	0.07 (1)	7.81	B-F	0 / 267
A-B	0 / 36	-119.4	-119.4	0.16 (1)	10.00	F-C	-77 / 37
B-C	-234 / 0	-119.4	-119.4	0.18 (1)	6.25	C-E	-341 / 0
C-D	-19 / 0	-119.4	-119.4	0.18 (1)	6.25		
E-D	-136 / 0	0.0	0.0	0.06 (1)	7.81		
G-F	0 / 0	-18.2	-18.2	0.04 (4)	10.00		
F-E	0 / 227	-18.2	-18.2	0.06 (4)	10.00		

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD	=	48.1	PSF	

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, NBC-2019AE
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL)= L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL)= L/999 (0.00")

CSI: TC=0.18/0.97 (B-C:1), BC=0.06/0.97 (E-F:4),
WB=0.11/0.97 (C-E:1), SSI=0.16/1.00 (B-C:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	650	371	1747

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.67 (B) (INPUT = 0.90)
JSI METAL= 0.13 (B) (INPUT = 1.00)

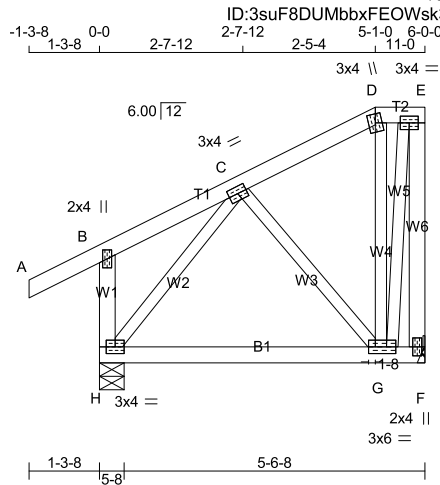


JULY 14, 2023

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: TRUSSES. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



PER: _____
CHIEF BUILDING OFFICIAL



Scale = 1:42.4

TOTAL WEIGHT = 36 lb

LUMBER

N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	No.2	SPF
D - E	2x4	No.2	SPF
F - E	2x4	No.2	SPF
H - B	2x4	No.2	SPF
H - F	2x4	No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	CTMWV-t	MT20	3.0	4.0		
D	TTW+m	MT20	3.0	4.0		
E	TMVW-t	MT20	3.0	4.0		
F	BMV1+p	MT20	2.0	4.0		
G	BMVWWW-t	MT20	3.0	6.0	1.50	1.50
H	BMVW1-t	MT20	3.0	4.0		

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
F	413	0	413	0	0	MECHANICAL	
H	575	0	575	0	0	5-8	1-8

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT F. MINIMUM BEARING LENGTH AT JOINT F = 1-8.

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	289	209 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0
H	399	303 / 0	0 / 0	0 / 0	0 / 0	96 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) H

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY
APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

C H O R D S					W E B S				
MAX. FACTORED		FACTORED			MAX. FACTORED				
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MAX.	MEMB.	MAX. FORCE	MAX	
	(LBS)	(PLF)	CSI (LC)	UNBRAC			(LBS)	CSI (LC)	
FR-TO		FROM	TO	LENGTH		FR-TO			
A - B	0 / 36	-119.4	-119.4	0.16 (1)	10.00	C - G	-206 / 0	0.06 (1)	
B - C	0 / 16	-119.4	-119.4	0.13 (1)	10.00	G - D	-133 / 0	0.04 (1)	
C - D	-100 / 0	-119.4	-119.4	0.12 (1)	6.25	E - E	0 / 397	0.09 (1)	
D - E	-72 / 0	-119.4	-119.4	0.02 (1)	6.25	H - C	-329 / 0	0.09 (1)	
F - E	-445 / 0	0.0	0.0	0.16 (1)	7.81				
H - B	-278 / 0	0.0	0.0	0.03 (1)	7.81				
H - G	0 / 208	-18.2	-18.2	0.12 (4)	10.00				
G - F	0 / 0	-18.2	-18.2	0.11 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL	=	34.8	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.3	PSF
TOTAL LOAD				=	48.1 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A
SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL
OR SMALL BUILDING REQUIREMENTS OF
PART 9, NBCC 2015

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- PART 9 OF BCBC 2018 , NBC-2019AE
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
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(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.16/0.97 (E-F:1), BC=0.12/0.97 (G-H:4),
WB=0.09/0.97 (E-G:1), SSI=0.13/1.00 (B-C:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.77 (G) (INPUT = 0.90)
JSI METAL= 0.13 (G) (INPUT = 1.00)



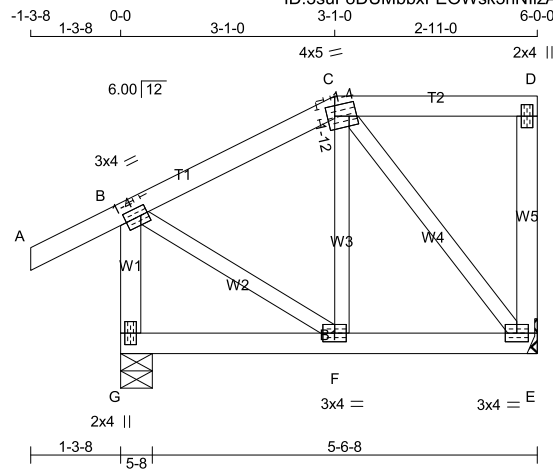
JULY 14, 2023

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IN THE DESIGN OF THIS COMPONENT.**



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-093	TRUSS NAME OF PERMIT PLANS Oct 30 2023	1	1	TRUSS DESC.	MHP 23030

PER: 
CHIEF BUILDING OFFICIAL



Scale = 1:33.2

TOTAL WEIGHT = 30 lb

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
G - B	2x4	DRY	No.2	SPF
G - E	2x4	DRY	No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	4.0	1.50	1.25
C	TTWW-m	MT20	4.0	5.0	1.75	1.25
D	TMV+p	MT20	2.0	4.0		
E	BMVW1-t	MT20	3.0	4.0		
F	BMVW-t	MT20	3.0	4.0		
G	BMV1+p	MT20	2.0	4.0		

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER**BEARINGS**

	FACTORED	MAXIMUM FACTORED	INPUT	REQRD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ
E	413	0	413	0
G	575	0	575	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT E. MINIMUM BEARING LENGTH AT JOINT E = 1-8.

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	289	209 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0
G	399	303 / 0	0 / 0	0 / 0	0 / 0	96 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) G

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (PLF)
FR-TO					FR-TO		
A-B	0 / 36	-119.4	-119.4	0.16 (1)	10.00	F-C	-45 / 43
B-C	-211 / 0	-119.4	-119.4	0.19 (1)	6.25	C-E	-287 / 0
C-D	0 / 0	-119.4	-119.4	0.17 (1)	10.00	B-F	0 / 218
E-D	-174 / 0	0.0	0.0	0.04 (1)	7.81		
G-B	-550 / 0	0.0	0.0	0.06 (1)	7.81		
G-F	0 / 0	-18.2	-18.2	0.04 (4)	10.00		
F-E	0 / 187	-18.2	-18.2	0.06 (4)	10.00		

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD	=	48.1	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

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ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.19/0.97 (B-C:1) , BC=0.06/0.97 (E-F:4) ,
WB=0.09/0.97 (C-E:1) , SSI=0.14/1.00 (C-D:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
	MAX	MIN	MAX
MT20	650	371	1747

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.55 (B) (INPUT = 0.90)
JSI METAL= 0.12 (B) (INPUT = 1.00)



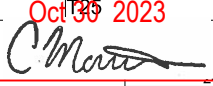
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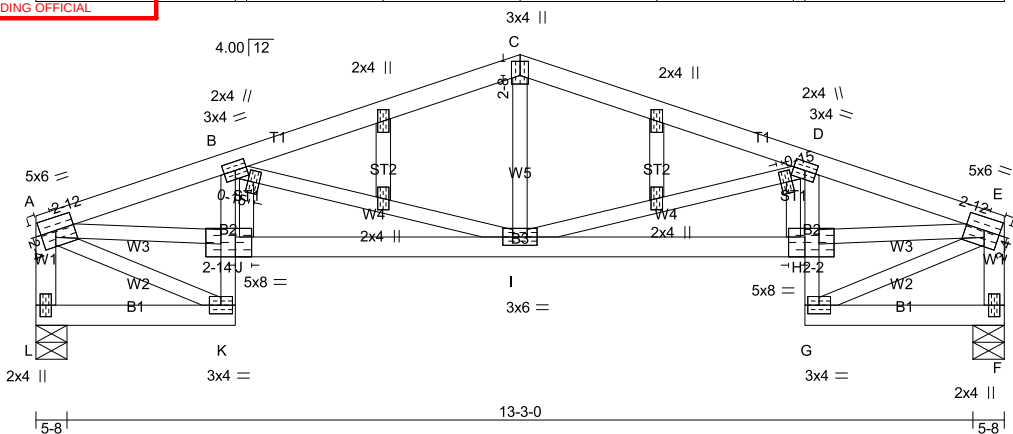
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Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Fri Jul 14 07:36:17 2023 Page 1																																																																																					
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LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - C 2x4 DRY No.2 SPF C - D 2x4 DRY No.2 SPF E - D 2x4 DRY No.2 SPF G - B 2x4 DRY No.2 SPF G - E 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT DRY: SEASONED LUMBER.		DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table border="1"> <thead> <tr> <th></th> <th>FACTORED GROSS REACTION</th> <th>MAXIMUM FACTORED GROSS REACTION</th> <th>INPUT BRG</th> <th>REQRD BRG</th> </tr> </thead> <tbody> <tr> <td>JT</td> <td>VERT</td> <td>HORZ</td> <td>DOWN</td> <td>HORZ</td> </tr> <tr> <td>E</td> <td>395</td> <td>0</td> <td>395</td> <td>0</td> </tr> <tr> <td>G</td> <td>593</td> <td>0</td> <td>593</td> <td>0</td> </tr> </tbody> </table> A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT E. MINIMUM BEARING LENGTH AT JOINT E = 1-8.					FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	JT	VERT	HORZ	DOWN	HORZ	E	395	0	395	0	G	593	0	593	0																																																												
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TOTAL WEIGHT = 7 X 18 = 128 lb																																																																																																																													
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: TRUSSES. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.																																																																																																																													
PROFESSIONAL ENGINEER I. MATIJEVIC 100528832 PROVINCE OF ONTARIO JULY 14, 2023																																																																																																																													
KOTT																																																																																																																													

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-093	TRUSS NAME OF PERMIT PLANS Oct 30 2023  PER: CHIEF BUILDING OFFICIAL	1	1	TRUSS DESC.	MHP 23030

Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Fri Jul 14 07:36:19 2023 Page 1
ID:bcGHXsLhLjMpVeVc_4eeDgzAk?y-RwMvsY?HZ8Fzm6IRfEZSns2vThn7jLNb0SZ?JDyyE7A

Scale = 1:33.7



TOTAL WEIGHT = 59 lb [M][F]

LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	DESCR.
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
L - A	2x4	DRY	No.2
F - E	2x4	DRY	No.2
L - K	2x4	DRY	No.2
K - B	2x3	DRY	No.2
J - H	2x4	DRY	No.2
G - D	2x3	DRY	No.2
G - F	2x4	DRY	No.2

ALL WEBS EXCEPT			
ALL GABLE WEBS	2x3	DRY	No.2
DRY: SEASONED LUMBER.			

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)			
JT	TYPE	PLATES	W L E N Y X
A	TMVWW-t	MT20	5.0 6.0 2.25 2.75
B	TMVW-t	MT20	3.0 4.0
B	NP+t	MT20	2.0 4.0
C	TTW+p	MT20	3.0 4.0 2.50 1.50
D	TMVW-t	MT20	3.0 4.0
D	NP+t	MT20	2.0 4.0
E	TMVWW-t	MT20	5.0 6.0 2.25 2.75
F	BMV1+p	MT20	2.0 4.0
G	BMVW-t	MT20	3.0 4.0
H, J, O, R			
H	BVMWW-I	MT20	5.0 8.0 Edge 2.00
I	BMVWW-t	MT20	3.0 6.0
J	BVMWW-I	MT20	5.0 8.0 2.75
K	BMVW-t	MT20	3.0 4.0
L	BMV1+p	MT20	2.0 4.0
M, N, P, Q			
M	NP+w	MT20	2.0 4.0

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG			
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
L	1046	0	1046	0	0	5-8	1-8		
F	1046	0	1046	0	0	5-8	1-8		

UNFACTORED REACTIONS									
JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS							
L	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
L	738	493 / 0	0 / 0	0 / 0	0 / 0	245 / 0	0 / 0		
F	738	493 / 0	0 / 0	0 / 0	0 / 0	245 / 0	0 / 0		

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) L, F

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.51 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING									
TOTAL LOAD CASES: (4)									
CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 (LC)	MAX UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 (LC)		
FR-TO		FROM	TO	LENGTH	FR-TO				
A-B	-2064 / 0	-119.4	-119.4	0.20 (1)	4.51	I-C	0 / 502	0.11 (1)	
B-C	-1502 / 0	-119.4	-119.4	0.29 (1)	5.00	I-D	-637 / 0	0.21 (1)	
C-D	-1502 / 0	-119.4	-119.4	0.29 (1)	5.00	B-I	-637 / 0	0.21 (1)	
D-E	-2064 / 0	-119.4	-119.4	0.20 (1)	4.51	A-J	0 / 1920	0.43 (1)	
L-A	-1006 / 0	0.0	0.0	0.11 (1)	7.71	H-E	0 / 1920	0.43 (1)	
F-E	-1006 / 0	0.0	0.0	0.11 (1)	7.71	A-K	0 / 71	0.02 (1)	
						G-E	0 / 71	0.02 (1)	
L-K	0 / 0	-28.2	-28.2	0.07 (4)	10.00				
K-J	0 / 35	0.0	0.0	0.17 (1)	10.00				
J-B	-146 / 23	0.0	0.0	0.13 (1)	7.81				
J-I	0 / 2026	-28.2	-28.2	0.40 (1)	10.00				
I-H	0 / 2026	-28.2	-28.2	0.40 (1)	10.00				
G-H	0 / 35	0.0	0.0	0.17 (1)	10.00				
H-D	-146 / 23	0.0	0.0	0.13 (1)	7.81				
G-F	0 / 0	-28.2	-28.2	0.07 (4)	10.00				

DESIGN CRITERIA			
*** SPECIAL LOADS ANALYSIS ***			
GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.			
LOADS WERE DERIVED FROM USER INPUT			
NO FURTHER MODIFICATIONS WERE MADE			
SPECIFIED LOADS:			
TOP CH.	LL	=	34.8 PSF
	DL	=	6.0 PSF
BOT CH.	LL	=	0.0 PSF
	DL	=	7.3 PSF
TOTAL LOAD	=	48.1	PSF
SPACING = 24.0 IN./C			
*** NON STANDARD GIRDER ***			
ADD'L USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.			
THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2015			
THIS DESIGN COMPLIES WITH:			
- PART 9 OF BCBC 2018 , NBC-2019AE			
- PART 9 OF OBC 2012 (2019 AMENDMENT)			
- CSA 086-14			
- TPIC 2014			
(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD			
ALLOWABLE DEFL.(LL)= L/360 (0.47")			
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.06")			
ALLOWABLE DEFL.(TL)= L/360 (0.47")			
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.11")			
CSI: TC=0.29/0.97 (C-D:1), BC=0.40/0.97 (I-J:1), WB=0.43/0.97 (A-J:1), SSI=0.21/1.00 (C-D:1)			
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10			
COMP=1.10 SHEAR=1.10 TENS= 1.10			
COMPANION LIVE LOAD FACTOR = 1.00			
AUTOSOLVE HEELS OFF			
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .			
NAIL VALUES			
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	650 371	1747 788	1987 1873
PLATE PLACEMENT TOL. = 0.250 inches			
PLATE ROTATION TOL. = 5.0 Deg.			
JSI GRIP= 0.88 (A) (INPUT = 0.90)			
JSI METAL= 0.50 (A) (INPUT = 1.00)			



JULY 14, 2023

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: TRUSSES. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



TOE-NAIL CAPACITY DETAILS

LATERAL AND WITHDRAWAL RESISTANCE OF BEARING ANCHORAGE BY TOE-NAILS

NAIL TYPE	Length (in)	Diameter (in)	LATERAL Resistance per nail (Lbs.)		WITHDRAWAL Resistance per nail (Lbs.)	
			SPF	D. FIR	SPF	D. FIR
COMMON WIRE	3.00	0.144	122	139	30	42
	3.25	0.144	127	144	32	45
	3.50	0.160	152	173	38	52
COMMON SPIRAL	3.00	0.122	96	108	26	36
	3.25	0.122	97	108	28	40
	3.50	0.152	142	161	36	50
3.25" Gun nail	3.25	0.120	94	105	28	39

Note: If using truss with D. Fir lumber and SPF bearing plate, use tabulated SPF values in table.

Nail type:	Common wire	Common spiral	Common wire	Common spiral	Gun Nail
Diameter (in.)	0.160	0.152	0.144	0.122	0.120
Length (in.)	3.50	3.50	3.00	3.00	3.25
LUMBER	MAXIMUM NUMBER OF TOE-NAILS				
2x4 SPF	2	2	3	3	3
2x6 SPF	4	4	4	5	5
2x4 D. FIR	2	2	2	2	2
2x6 D. FIR	3	3	3	4	4

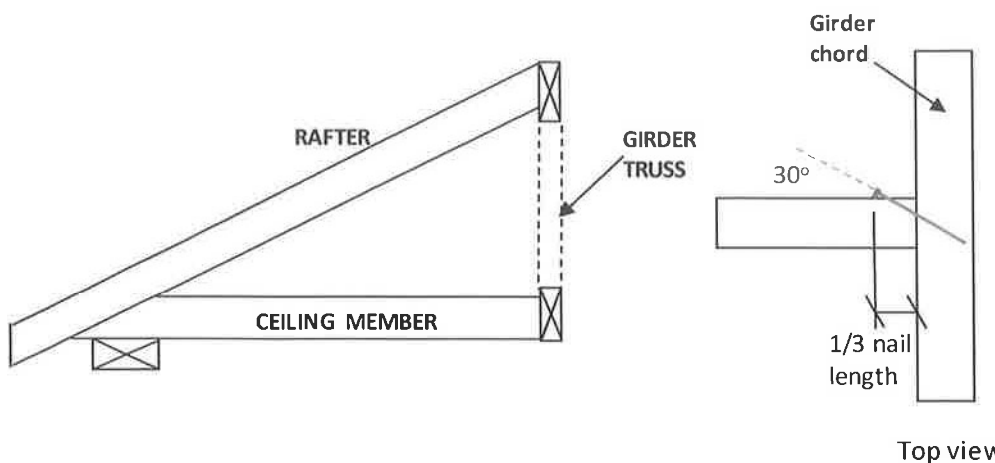
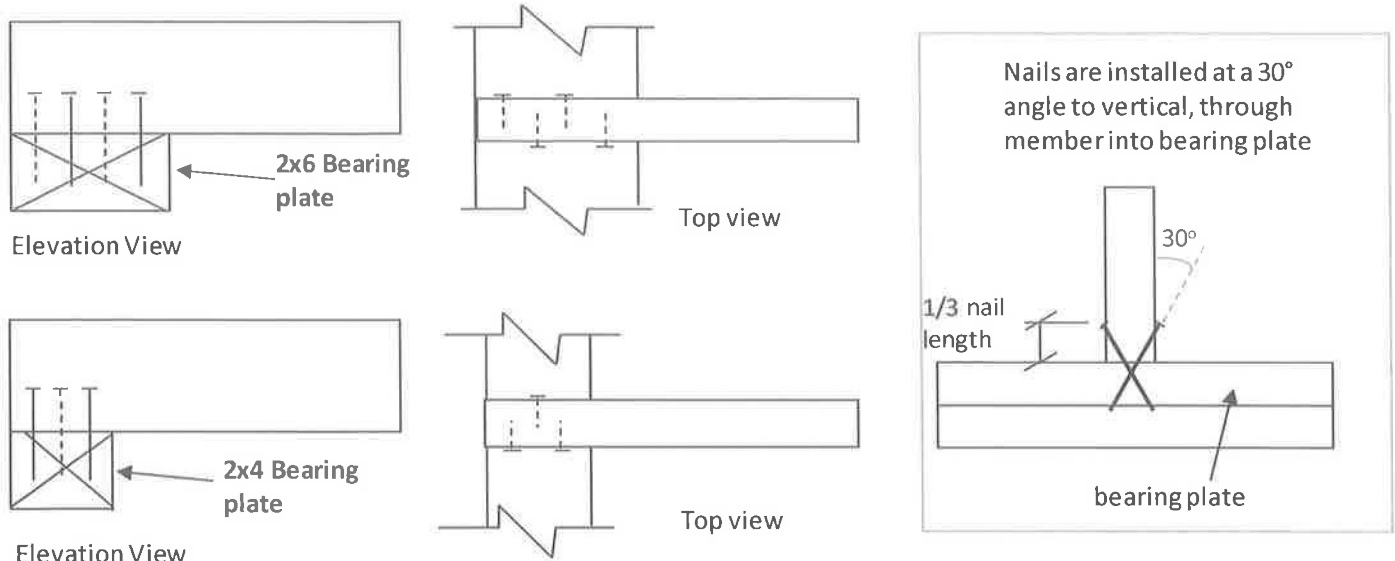


Figure 1: Toe-Nailing Rafter / Ceiling Member to Girder Truss

TOE-NAIL CAPACITY DETAILS

Figure 2: Toe-Nail Anchorage to Bearing Plate for Uplift



NOTES:

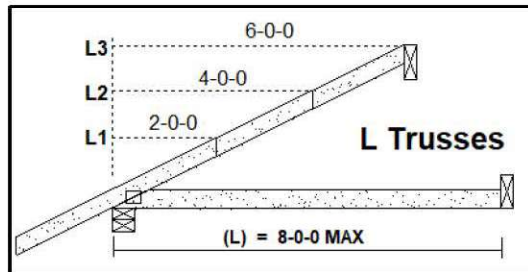
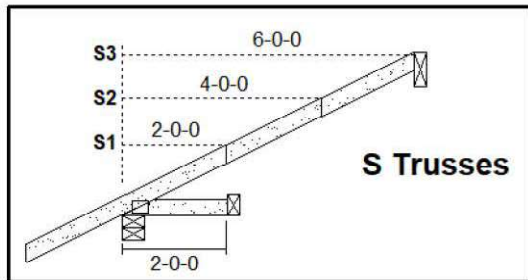
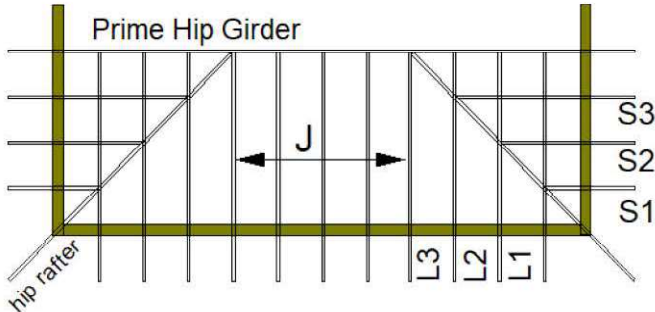
1. Rafter and ceiling members may be connected to top and bottom chords of girder truss by toe-nailing the members into the girder chords (see fig. 1), provided the factored vertical reactions of the supported members do not exceed the lateral resistance of the toe-nails. Mechanical connectors (hangers) are required if factored vertical reactions exceed the toe-nail capacity, or if the connection must resist horizontal loads (loads perpendicular to the face of girder or rafter).
2. Trusses, rafters or ceiling members may be anchored to the bearing plate with toe-nails (see fig. 2), provided that the factored uplift reactions due to **wind or earthquake loads** do not exceed the **withdrawal resistance of the toe-nails**. Mechanical anchors (tie-downs) are required for reactions that exceed the toe-nail withdrawal capacity. Toe-nail anchorage to bearing plates is **NOT** permitted if uplift reactions are generated from gravity loads (snow, floor live, dead).
3. Tabulated toe-nail resistances on page 1 are for **one** toe-nail. Multiply unit values by the number of nails used in the connection. Maximum number of nails in a connection shall not exceed the tabulated limits shown on page 1 for a given lumber size /species.
4. Nail values are based on specific gravity of $G = 0.42$ (SPF) and $G = 0.49$ (D. Fir).
5. Toe-nails shall be driven at approximately $1/3$ the nail length from the edge of the joist/truss chord and driven at an angle of 30° to the grain of the member.
6. For wind / earthquake loads, tabulated lateral resistances may be multiplied by 1.15 (K_D factor). No increases are permitted for tabulated withdrawal resistances.
7. Lumber must be dry ($< 19\%$ moisture content) at the time of nail installation.
8. Nail values in this table comply with CSA O86-19, Clause 12.9.

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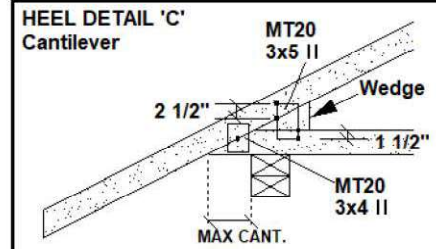
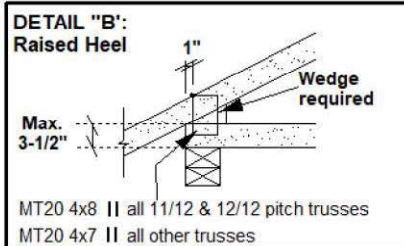
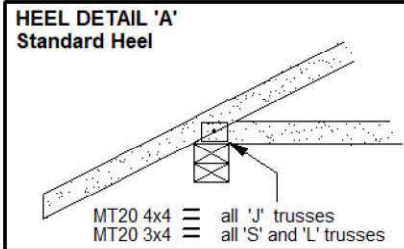
STANDARD HIP END FRAMING

PLAN VIEW



Specified Load Rating:

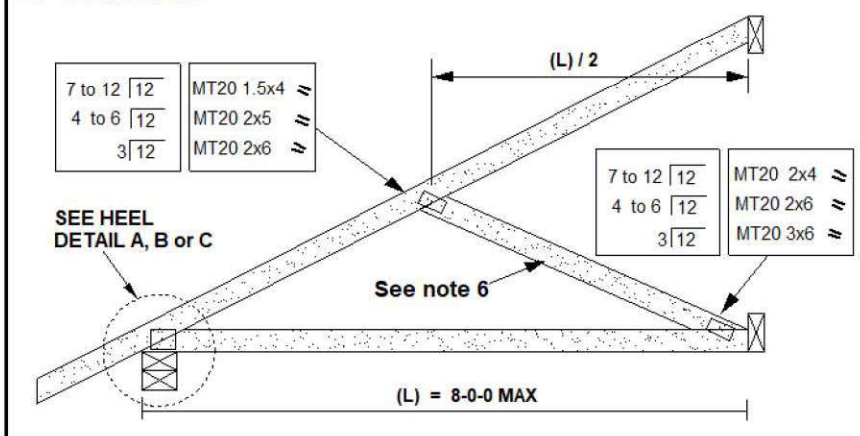
Top chord Live:	51.0 PSF or less
Top chord Dead:	6.0 PSF or less
Bottom chord Live:	0.0 PSF
Bottom chord Dead:	7.3 PSF or less



CANTILEVER DETAIL "C"

SLOPE	MAX CANT.	WEDGE PLATE	WEDGE SIZE
3/12	17"	3 X 5	2 X 3
4/12	14"	3 X 5	2 X 3
5/12	12"	3 X 5	2 X 4
6/12	10"	3 X 5	2 X 4
7/12	9"	3 X 5	2 X 6
8/12	8.5"	3 X 5	2 X 6
9/12	8"	3 X 5	2 X 6
10/12	7.5"	3 X 5	2 X 6

J Trusses



NOTES:

1. This detail is valid only for projects conforming to **PART 9 NBCC 2015** that do not require a wind analysis to be incorporated into the design of the trusses.
2. Overhang length shall not exceed 24 inches.
3. All lumber shall be 2x4 SPF (or D-Fir) DRY No. 2 grade or better.
4. All plates specified are MITEK MT20, pressed into both faces of each truss. Heel plates of all trusses shall conform to heel details 'A', 'B' or 'C'.
5. Diagonal hip rafter design shall conform to section 9.23.14.6 of NBCC 2015.
6. For 6.0 ft. or less span, diagonal web on truss 'J' is optional. Girder design must reflect choice of partial jack ('J' with diagonal web) or open jack ('J' without diagonal web)
7. All truss-to-rafter and truss-to-truss connections shall be specified as per MITEK standard detail 'MSD2015-H: Toe-Nail Capacity Details'

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